



User's Manual

MFS-TX-2G4

1. DESCRIPTION

The MFS-TX-2G4 is a 2.4GHz MFS Transmitter with 24 digital channel inputs. Four of the inputs may be used with a 4-bit gray code trigger. The transmitter uses a 2.4GHz DSSS transceiver for RF transmission and reception. The 2 operation channels (primary and secondary) can be set to any 2 of 16 available channels. The transmission duty cycle is adjustable from 1-10%. Additionally, this unit always receives feedback which may be used to control optional status LEDs and/or vibration motor.

Note: Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

2. TECHNICAL SPECIFICATIONS

Temperature Range	-20°C to +70°C
Supply Voltage Range	2-5 VDC
Supply Current	20mA max 40mA for 5 seconds on startup
Outputs	1 Pulsed Vibration Motor 5 Status LEDs (3 Feedback Controlled) RF/Cable Backup Control Data
Inputs	24 Digital TTL Inputs 1 Optional Label Switch Input RF/Cable Backup Feedback

Note: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. FUNCTIONAL DESCRIPTION

Transmitter Operation



- System power is initially off. Activation of any switch attached to VSW will power up the coder.
- If a switch is on when the battery pack is installed, the coder will light the Red LED and prevent operation until the switch is released or fixed.
- After activation, the coder will automatically power down while idle. This timeout is adjustable via H-Link.
- The coder is a passive transmitter which enters transmission cycles based on the programmed duty cycle.
- Each transmission cycle produces two transmissions. One occurs on the primary channel while the other occurs on the secondary channel. Immediately after each transmission, the coder listens for feedback from the decoder for up to 3ms. The Green or Red LED will toggle for each frame that is transmitted.
- After each transmit/receive pulse, the radio is disabled to save power.
- Pressing the stop button (DK31/DK32) will disconnect the battery and force stop frames to be sent until the unit discharges.
- DK1 is a start function. This button can be used to reset receiver errors (Overload/ Main Contact error) or to perform the learning operation.
- DK3-18 are regular digital channels.
- DK19-22 can be used as a 4 bit grey code trigger or regular digital channels.
- If the battery level drops below the set low-voltage level, the coder will light the Red LED.
- If the battery level drops below the critical level, the transmitter will turn off the Green LED and blink the Red Led while sending Stop frames. The power will be turned off after 2 seconds or after all switches are released.